

Broadband Questions and Answers

RFP Process:

1. **Timeline and background of the RFP (request for proposal) process** – Below is the description and timeline of the process the WNYRIC/Erie 1 BOCES followed in developing and awarding the RFP to Time Warner Cable (TWC) for the broadband network.

2012-

- Equipment was getting old and starting to fail and the Broadband contract was 7 years old
- Began reviewing fiber builds throughout region through NY State Broadband (mapping updates) October 2012. This continued through summer 2013 knowing RFP was imminent.
- Met with current provider Time Warner in 2012 about problems being experienced with fiber "flapping" at hub sites which was increasing. Time Warner's model was changing to Metro Ring vs point to point model.
- Detailed discussions about the recent costs of dark fiber (fiber where the leasee provides and manages the end points) and lit fiber (fiber where the provider is responsible and manages the end points).
- Began 30 minute sessions with Gartner Research about wired and core infrastructure advances (10 Gb). Also utilized Gartner research in regards to broadband, wired and wireless infrastructure growth with the advent of mobile devices in education.
- Reviewed E-Rate updated rules, etc with dark and lit fiber (2012-13).
- Researched and investigated 10 Gb build scenarios for the core firewalls –Began having discussions with Statewide RIC Directors' Technical Committee on what other broadband network designs were being utilized or researched; their capacity, bandwidth and pros/cons to different designs and costs to RICs and districts.

2013-

- Began further research and conversations with Gartner about broadband infrastructures.
- PARCC/CBT Tech Readiness Tool released which provided guidance on measurement tools re: necessary infrastructure and necessary tools.
- Began informing school districts of pending Broadband RFP for July 1, 2015 through Advisory Council and the WNYRIC Service presentations in October 2013.
- Met with Erie 1 BOCES Finance and Purchasing departments as well as E-Rate Central in regards to RFP and E-Rate submission schedules.
- Began compiling RFP components based on research and original RFP. November – WNYRIC staff met with BOCES Directors of Technology and Distance Learning Coordinators to review preliminary RFP - initial meeting.
- Continued investigation of E-Rate rules.
- Investigated if an extension to the current contract with Time Warner was feasible. It was not due to on E-rate rules.
- Collation of school district sites and current infrastructure created December 2013 - pros and cons scenario matrix created based on November meeting notes with BOCES/DL leaders.
- December - second meeting with Directors of Technology and Distance Learning Coordinators from the BOCES to review RFP version 2 and get their input.
- December - Gartner call arranged with Daniellie Young and RFP updated.

2014-

- January - RFP revised based on Gartner calls
- RFP draft sent to BOCES representatives of DL and technology and meeting took place to discuss in January
- January - Another Gartner call to review updates took place- updates sent to the BOCES regional group.
- Discussed RFP and also reviewed options/proposals with WNYRIC standards committee throughout the process.
- WNYRIC WAN Seniors were asked to validate all connection addresses.
- End of January - another meeting with BOCES representatives of DL and technology - version #7 reviewed

- RFP final review with WNYRIC WAN Seniors.
- February - RFP posted and promoted for 28 days.
- March - bid opening occurred
- April - analysis collated and sent to all BOCES representatives and distance learning coordinators including District Superintendents - clarification/edits provided.
- April 28 – met with BOCES representatives, distance learning coordinator(s), and district superintendents to review bid results, go over pros/cons of options.
- Reviewed with Advisory Council; recommendation to move forward approved

2. Individuals involved throughout the process -

During the RFP process, the following people representing each region were an integral part and involved in the discussion and development of the RFP. These people were chosen because of their expertise and knowledge of the technology, and the needs of the districts:

Dan Wallenbeck, Iann Miller, Joe Rozbicki, Kyle Lyon, Mickey Edwards, Mike Graf, Mike Bayba, Mike Torrey, Rene Carver, Dick Lydo, Rick Mardino, Bob Spino, Ron Ternowski, Sheldon Soman, Jill Holbrook, Carol Barber, District Superintendents from the JMT, Jim Fregelette.

3. Research - why was RFP written the way it was?

The RFP had to contain certain components to ensure what the group considered a minimum level of acceptable service, but was changed from the former RFP to include the following: a metro ring component, with circuits going to a vendor hub instead of BOCES, a dark fiber scenario and lit fiber scenarios. The intent was to see if these additional options would bring in other bidders and more aggressive pricing. Research involved:

- reviewing the current infrastructure
- looked at common and best practices in the internet provider world and across the state, and nationally
- looked at past and current utilization
- forecasted models of support that would provide flexibility and provide for growth, while maintaining existing cost structure.

The RFP was put together with the knowledge and understanding that the district's usage of the network has been increasing significantly over the last couple years and will continue to do so. Therefore, the network design had to have the ability to add bandwidth to any district that will need to.

4. How was RFP written? What options were the vendors given?

There were 4 options given to the vendors in the RFP process (7 options were discussed amongst the teams and 4 moved forward to the RFP):

1. Dark Fiber build from the districts to the WNYRIC and Disaster Recovery Site
2. Dark Fiber build copying existing infrastructure
3. New lit service from districts to WNYRIC and DR site using vendor hubs
4. Lit service from districts to existing regional hubs and then to the WNYRIC and DR site

NOTE: Dark Service means vendor just provides fiber and nothing else (equipment is not included)
 Lit Service means that the vendor includes all equipment necessary to provide service

5. Why were we looking for providers by BOCES region?

The committee felt that from a support and consistency perspective for all districts it would be better to have a provider that could provide to a region. The WNYRIC also was looking for the ability to obtain the best price possible while maximizing the amount of bandwidth offered. Past experience has shown that due to the expense of providing the network to smaller, more remote districts, the pricing for all districts could be leveraged better and lowered by having more districts participate

Pricing

6. What pricing has been stated/documentated as averages statewide or nationally?

Statewide the average cost per Mb stated by David Solway as \$3.00 /Mb (1Gb circuit = approximately \$3,000). Nationwide the average cost of a 1Gb circuit was noted at around \$2,550/month. (NOTE: may include additional build/installation costs.) The cost obtained through the RFP was \$1,500/month per circuit; or \$1.50/Mb, compared to the current circuit cost of \$1,750/month. This price was guaranteed for not only the first 1 GB circuit in each district, but also for 1 additional 1 GB circuit for each district if and/or when needed.

Additional Circuits

7. Why only 1 GB why not more?

The RFP requested a 10 GB response as well. No vendor responded to any district that they could provide 10 gig at this time. There is potential for growth beyond 1 GB into the future. At this time, each district could add at a minimum at least 1 GB additional circuit.

8. Can every district get a second circuit if needed?

Yes, Time Warner Cable can add at least one additional 1 Gb circuit to each location at the same monthly circuit cost as was bid (\$1,500/month), However, there will be additional costs with the installation of the circuit which may include some or all of the following, Time Warner build costs, additional district equipment cost, additional districts software costs, and additional district planning and maintenance costs. If a district is interested in installing a second 1 Gb circuit at any of their locations they should contact the RIC Senior Lan/Wan personnel assigned to their district to start the planning process.

In addition, each BOCES is able to expand to a 10 Gb circuit. There may be a few districts that this also applies to at this time, however because there are no specifics to which ones may need the 10Gb circuit and when, we do not have details on which districts are eligible. There would be higher cost circuit fees, build costs, equipment, and software cost needed in order to install a 10Gb circuit.

9. In the next 18 months, are there any districts that should look at installing another circuit? Which ones?

The WNYRIC will monitor every district's Internet usage on a monthly basis to assist a district in determining when it may need to add additional circuits. The RIC and the districts will have the capability to monitor this as well with new tools purchased and available this coming spring. Planning will occur upon request or if it is determined that usage is problematic through this monitoring.

10. What is the average lead-time on additional circuits?

Currently, the majority of districts could have an additional circuit installed by TWC with ninety (90) days notice. However, there may be additional time needed to plan how the addition of the circuit will be implemented to maximize the efficiency of the connection. It is important for any district interested in adding additional circuits, or thinking they may need to add additional bandwidth, to contact the WNYRIC to start the discussion and planning process.

Advantages of Network Option chosen:

11. Comparisons of the current versus new broadband network structure.

The change from the current infrastructure is the following:

- i. Lit service from District to Harlem and Colvin
- ii. Each district would have a 1x1GB copper handoff
- iii. New hardware would be installed at each district for this, by the provider
- iv. New fiber would be installed to connect each District to the closest Time Warner facility
- v. Vendor facilities have built-in redundancies to their network
- vi. Each would have a connection to Harlem and Colvin utilizing VPLS

vii. Connections at Harlem and Colvin would be 4x10GB fiber handoff
(See attachment on benefits and diagrams of current and future broadband network structure)

12. What were the advantages of the plan chosen over the current system?

All of the items listed in **item 11** help answer this question. The main advantages are the reduction of the “last mile” of fiber, the installation of new fiber and equipment which means the 10 year old existing equipment will be removed, and Primary and DR paths will be equal speed. In addition the current system does not have the ability to expand or grow like the proposed broadband network. The current (old) network has an additional level of routing that can create an additional bottleneck to the routing of bandwidth to and from districts. This would create additional costs and inefficiencies to overcome these routing issues. It is important to note that this current system has equipment that is old and starting to fail. This would be very costly to the WNYRIC and the districts to replace.

13. What is the cost of the 10 Gb or 40 Gb services (At RIC)?

The costs of the 10 gig or 40 gig shared circuits are a part of the overall contract and shared by all districts and BOCES since it is shared by all as part of the full broadband circuit.

14. How are BOCES treated?

The number of connections at each BOCES in the new model depends upon the number of centers that each BOCES is delivering to. Each center will have a 1GB connection from the center to the BOCES. Each BOCES main site will then have a 1GB connection into the Time Warner cloud that will terminate at the WNYRIC and our DR site. Erie 1 BOCES is the same as any other BOCES in the new design and has been treated the same as all BOCES and districts in the current design as well. The Time Warner cloud connection to the WNYRIC will consist of 4x10GB connections at Harlem road and DR site. These are the connections that all of the districts including the BOCES will travel to get to the Internet and to WNYRIC services. (See diagrams of current and new network structures)

15. What will the cut over process look like?

All districts will be notified of the detailed plan later in the spring as the cut over date approaches.

If you have any questions, please call Ron Ternowski (rternowski@e1b.org or 716-821-7049).